WTF???	Today's Topic: OMG N RR	
	LOLOrthographic Mapping in Reading Recovery	

Agenda:

- What is OMG (orthographic mapping)?
 - How does it happen?
- How does one teach OMG?
 - Linnea Ehri and Marie Clay's work

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Linnea Ehri: What is Orthographic Mapping (OMG)?



"...orthographic mapping creates
connections between graphemes and
phonemes to secure spellings bonded to
pronunciations of words in memory."

(Ehri, 2022, p. 57)



"...is an internal process that is activated spontaneously when words are seen and their pronunciations are produced or heard."

(Ehri, 2017, p. 142)

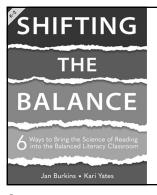
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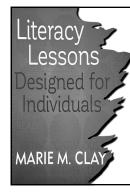
"To form connections and retain words in memory, readers need some requisite abilities. They must possess phonemic awareness (i.e., the ability to focus on and manipulate phonemes in speech), particularly segmentation and blending. They must know the major grapheme-phoneme correspondences of the writing system."

(Ehri, 2017, p. 129)

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"The most basic distinction between phonics and phonemic awareness is the inclusion (or exclusion) of letters (Adams 1990). Phonemic awareness, in its purest sense, involves only spoken sounds, without letters attached. Once you add letters to the sounds, the phonemic awareness work begins to overlap with phonics work."



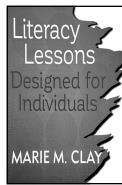
"...it is clear that becoming aware of phonemes is essential for becoming good at word recognition (Ehri & Sweet, 1991)."

(Clay, 2016, p. 93)

"Phonemic awareness must be embedded in and integrated with both word recognition and language comprehension from the beginning of literacy learning. It is not sufficient for the child to become competent with phonemic analysis: he has to expand his view of the task. Both sounds and spellings have to be thought about."

(Clay, 2016, p. 95)

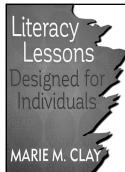
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"It took educators and publishers some years to shed their confusions about the term phonemic awareness and to clearly define it as becoming aware of the sounds within spoken words. We are referring to those sounds that make the smallest difference between two similar words, what linguists call the phonemes of a language."

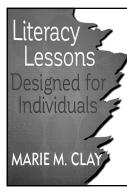
(Clay, 2016, p. 92

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"No letters are used in the very earliest stages of developing phonemic awareness. The child needs to use his ears. An awareness of the sounds in words is developed."

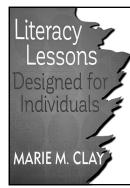
(Clay, 2016, p. 94)



"Phonemic awareness receives explicit attention in every Reading Recovery lesson with special attention given to hearing and recording the sounds in words for writing. What is learned in writing is also used when the child is taking words apart while reading, and when working with words at the magnetic board."

(Clay, 2016, p.170)

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"These procedures have been an important part of the intervention since 1976 (although critics have often missed that fact)."

(Clay, 2016, p.170)

11



"You can get started teaching phonemic awareness with just a few minutes a day and a clear understanding of the most important tasks, including an awareness of what makes each of them easier or harder for children. Research has demonstrated that consistency is more important than quantity. A teacher's knowledge of these relationships between phonemic awareness skills, used to thoughtfully design instruction, can actually reduce the amount of time it takes for students to develop phonemic awareness by up to 40 percent (Kjeldsen et al. 2014). So, individual phonemic awareness lessons must be held together by a larger intentional plan of instruction which doesn't have to come from a program but it can (Melby-Lervag, Lyster, & Hulme (2012)."

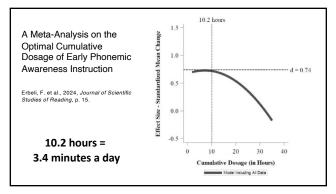
(Burkins & Yates, p. 82)



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14



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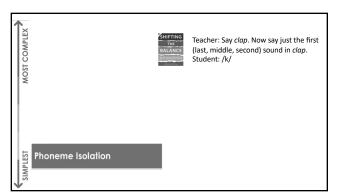
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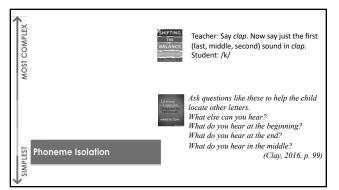
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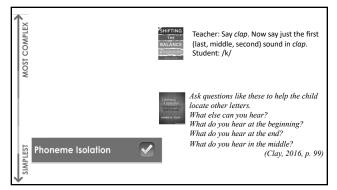
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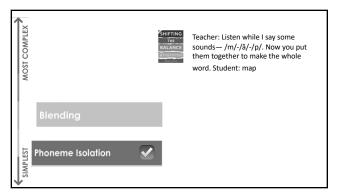
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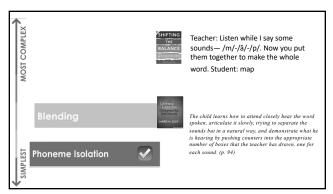


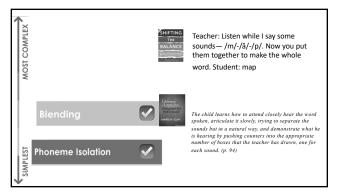
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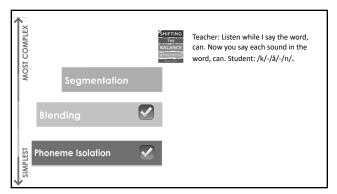


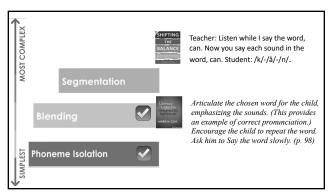


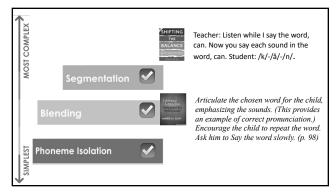


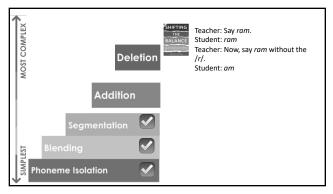


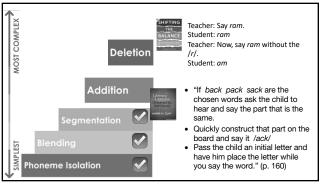


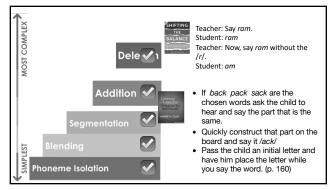


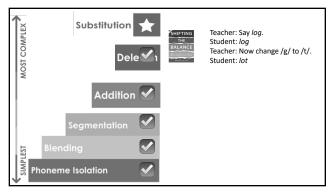


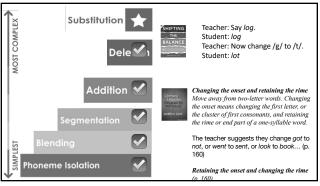


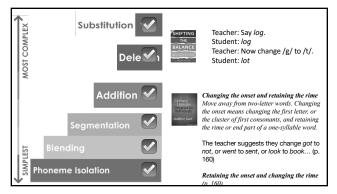


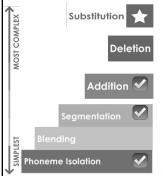








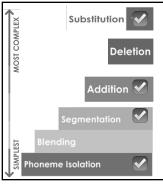




Phoneme substitution

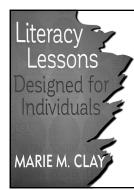
"Phoneme substitution is removing one phoneme from a word and replacing it with another phoneme. Substitution is the most complex work because it combines segmentation, isolation, deletion, and finally blending." (Burkins & Yates, 2021, p. 83)

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Phoneme substitution

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"Establish phonemic analysis and letter-sound relationships as a primary achievement before making the shift [to analogy and substitutions]." (p 90)

"Carefully consider the sequence of difficulty in the following activities and judge where your planned interaction fits." (p. 157)

"Notice that using analogy is placed later in the learning sequence. This is because reading or writing a new word by analogy from one you already know is complex." (p. 160)

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Word reading strategies and orthographic mapping.

Children are taught to read words in multiple ways, by applying strategies to read words.

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The strategies are strategies and to read under the strategies to be read words and to read unfamiliar words.

The writing system consists of grapheness that are single festers or diagraphs that represents if the strategies posten consists of grapheness that are single festers or diagraphs that represents if the strategies posten consists of grapheness that are single festers or diagraphs that represents if the strategies are the strategies cound units (e.g., somp, stime, col., sign) Oslona, 2010. Decoding motives transforming grapheness as held of phosenses, or transforming pringer terms that the day of phosenses, or transforming strategies transformed strategies and absolute of phosenses. The strategies are the strategies could units a bed of phosenses, or transforming pringer terms that better of phosenses. The strategies are the strategies and the strategies are the strategies are the strategies and the strategies are the strategies are the strategies and the strategies are the strategies are the strategies and the strategies are the strategies and the strategies are the

When readers can read words from memory rather than by decoding, analogy or prediction, text reading is greatly facilitated. Readers are able to read and comprehend more rapidly and to focus their attention on meanings while word recognition happens automatically. Although word reading strategies are no longer needed to identify words once they can be read from memory, decoding and prediction may still be activated as backup to confirm that the words identified fit the spelling and the context or to signal a mismatch needing repair (Perfetti, 1985).

Readers differ in the connections that are activated to bond the identities of words in memory. Perfetti (2007) proposed the concept of levical anality to capture variation.

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3-2-1 Read

- Find a reading partner or triad:
- •3-2-1: As you read, notate:
 - 3 ways of solving unknown words;
 - 2 connections to where/when/how you've seen these in your context
 - •1 surprise or ah-ha you have

Turn & Talk



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Ehri's Ways to solve unknown words:

 decoding strategy using knowledge of the writing system; (Ehri, 2017, p. 128)

Prompts we use:

- Say the first part...
- Let me show you this part...look at this part...
- Say this word slowly. Now let's use the boxes to think about how it would look.

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Ehri's Ways to solve unknown words:

• by analogy using parts of other known words (Ehri, 2017, p. 128)

Prompts we use:

- That's like another word you know.
- This part works like the first/last/middle of the word...
- That's like your name/___'s name.
- Here's a word you know (write word). There is something about this word that can help you with the word you are trying to read/write.

Ehri's Ways to solve unknown words:			
by prediction: "readers use initial letters plus cor cues in the sentence, the passage, or pictures to anticipate what the word might be. Once a word is predicted, then its pronunciation is matched to the	itext		
predicted, then its pronunciation is matched to the spelling on the page to verify that the sounds fit the letters." (Ehri, 2017, p. 128)	e		
• Prompts we use:			
 You said something that makes sense and sounds right. Do right? 	es it look		
 Something doesn't look right. You made it makes sense and sound right and look right. 			
 Are you right? Check to see that what you said looks right. Show yourself the first part/last part/the part that says 			
40			
If you need to give a Told during Familian			
Reading or in the First Reading of a text • Make sure you are getting the child to be active			
I wake sure you are getting the child to be active	•		
Give two alternatives: This word could be 'with' or	'want'		
Which is it?	want.		
• Give the told and then ask the child to do somethi	ng:		
Show yourself the first part of that wordthe two part that will help you the next time you read it	oartsa		
41			
Orthographic Mapping at Wo	rk		
42			
42			

RED	BLUE	GREEN	ORANGE	YELLOW
PURPLE	ORANGE	RED	GREEN	BLACK
BLACK	YELLOW	BLUE	RED	PURPLE
ORANGE	RED	GREEN	PURPLE	YELLOW
BLUE	RED	YELLOW	ORANGE	BLACK

RED	BLUE	GREEN	ORANGE	YELLOW
PURPLE	ORANGE	RED	GREEN	BLACK
BLACK	YELLOW	BLUE	RED	PURPLE
ORANGE	RED	GREEN	PURPLE	YELLOW
BLUE	RED	YELLOW	ORANGE	BLACK

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Demonstrating Orthographic Mapping

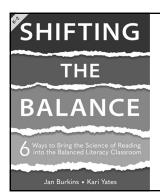
- You can process both colors and color words automatically due to repeated exposure.
- Over time, the meanings of words are bonded to the words via orthographic mapping. The strength of this bonding is felt when your brain had to override its initial impulse of automatically accessing the meaning in order to just name the color rapidly.

Ehri's	Four Ways to Develop Orthographic Mapping:	
	"Orthographic mapping occurs	
What Teachers Ne	when students decode words, when they study the GP [grapheme-phoneme] relations in	-
Awareness, Word I	spellings of words,	
In the part of the	even when they simply look at a spelling and hear it pronounced.	
Also consequence can't preserve have a manifest on any plant on any plant on the manifest on any plant on any plant on the manifest of the control of the control of the manifest of the control of the control of the plant of the control of the control of the tent before the control of the control of the plant of of plant of plant of plant of plant of plant of plant	When GP units are known well, orthographic mapping is	
	activated automatically to connect graphemes and phonemes to	
	secure spellings bonded to their pronunciations in memory."	
46		
Ehri:	Ways to Develop Orthographic Mapping	
1.	study relationship of letters, sounds, and spellings	-
2.	use Elkonin boxes to scaffold writing a word or seeing a word	-
3.	look at a word and hear it pronounced	
4.	teach for analogy in reading/writing	
5.	practice reading in appropriately leveled, meaningful texts so that semantic and syntactic information can be stored alongside of visual information	
	visual information (Ehri, 2022)	
47		
47		
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	(Ehri, 2022)	

"Knowledge of the writing system is a key ingredient in learning to read words and the relationship is reciprocal. Beginners are taught grapheme-phoneme relations and these are used to read words. As written words accumulate in memory, additional knowledge about the writing system is formed, and this in turn facilitates word reading ability."

(Ehri, 2017, p. 143)

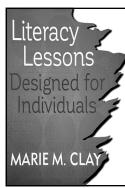
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"The ability to apply a phonics skill to writing, after all, is evidence of deep understanding (Treiman and Kessler 2014)."

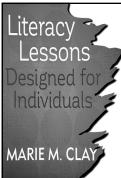
Burkins & Yates, 2021, p. 132)

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"Writing requires the child to pay close attention to the words he has chosen to write in his story, to hear the sounds in those words and to write down letters that will represent those sounds. It is an activity well suited to developing phonemic awareness."

(Clay, 2016, p. 93)



"Each day, select from the child's composed message a number of words that offer a challenge to this child at this time for learning how to hear and record the sounds in words. The focus then shifts to not only hearing the sounds but also representing them with letters. The child now learns to link hearing with seeing. Pathways must be built to link sounds with letters and vice versa." (Clay, 2016, p. 94)

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Ehri: Ways to Develop Orthographic Mapping

- 1. study relationship of letters, sounds, and spellings
- 2. use Elkonin boxes to scaffold writing a word or seeing a word
- 3. look at a word and hear it pronounced
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6. (Ehri, 2022)

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Elkonin Boxes

"...A comprehensive analysis of the effects of word boxes [Elkonin boxes] on students' reading performance...revealed that there was evidence to support the use of word boxes for helping preschool to elementary students acquire phonemic awareness, letter-sound correspondences, and spelling."

(Ross, K. M. & Joseph, L. M. (2019), p. 43). Effects of Word Boxes on Improving Students' Basic Literacy Skills: A Literature Review in *Preventing School Failure*, *Issue* 1, 2019.

"How the teacher uses the boxes will change across the lessons. Through these activities the child is introduced to regular and irregular features of English. At first the teacher uses the working page with boxes daily to develop phonemic analysis. Later she may use the boxes when she wants to stress some aspect of the new word—hearing a difficult sound, or introducing a spelling convention."

(Clay, 2016, p. 101)

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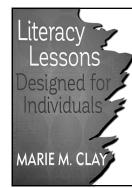
(Ehri, 2022)

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d

"When readers see a new word and say or hear its pronunciation, its spelling becomes mapped onto its pronunciation and meaning. These mapping connections serve to "glue" spellings to their pronunciations in memory."

(Ehri, 2017, p. 129)



"For a little more help during reading, or rereading after writing, or word analysis, the teacher might say something like 'Say it slowly and move your finger under it, like this."

(Clay, 2016, p. 54)

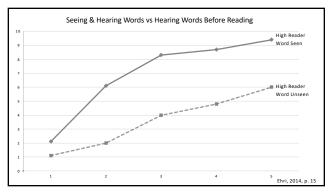
"Ask him to look at the word (using the eyes), or run his finger under it as he says it slowly (coordinating left-to-right beginning to end)...

(Clay, 2016, p. 158)

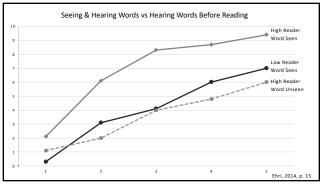
"It makes sense to assume that learning the concept of word in text could facilitate the acquisition of phonemic awareness. Finding the separate words on the page of print may consolidate and confirm what the child is learning about letter-sound relationships. Moving the finger left to right through a word can be easily matched with saying the word from beginning to end."

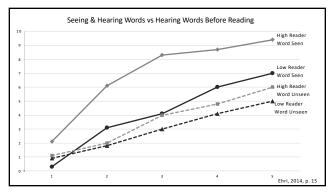
(Clay, 2016, pp. 130-131)

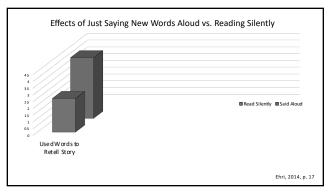
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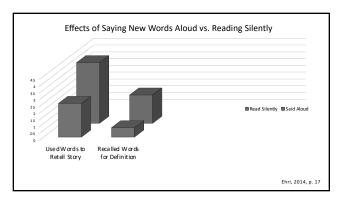


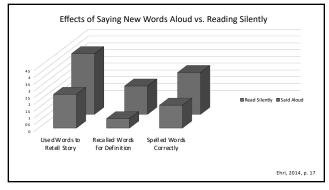
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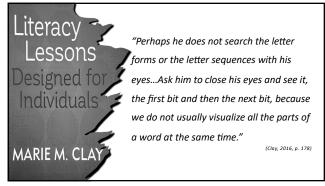


What might help?

"We found that not only seeing spellings but also directing second graders to imagine the spellings of novel words improved their memory."

(Ehri, 2017, p. 139)

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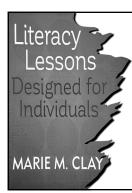


Ehri: Ways to Develop Orthographic Mapping

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(Ehri, 2022)

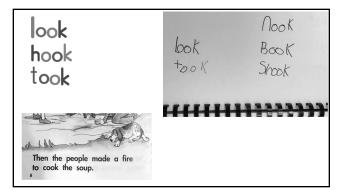
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"Knowing many high frequency words enables the reader to attend to language and meaning, to monitor his reading and to problem-solve on the run. It also increases the child's resources for solving new words in both reading and writing by analogy with words he already knows."

(Clay, 2016, p.153)

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Diane DeFord's Study of Writing for High	gh
and Low Progress Teachers (1994)	

- Elkonin boxes were used more often for high progress students
- Prompts to use analogy were used more often for high progress students
- Teachers of lower progress students wrote words on practice page more often and just had child copy

Ehri: Ways to Develop Orthographic Mapping

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(Ehri, 2022)

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"Then they need to be able to read unfamiliar words on their own, by applying a decoding, analogy or prediction strategy. Application of these strategies activates orthographic mappings to retain words' spellings, pronunciations, and meanings in memory." Share (2004, 2008) referred to this decoding as a self-teaching mechanism whereby a reader can learn words independently. With repeated readings that activate orthographic mapping, written words are retained in memory to support reading and spelling."

(Ehri, 2017, p. 129)

"Rereading [words] a few times moves the words into memory so they can be read by sight." $\,$

(Ehri, 2017, p. 127)

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1		
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Linnea Ehri	connections between graphemes and	
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	(Ehri, 2022, p. 57)	
72		
73		
Ehri: Fost	ering Orthographic Mapping	
" orthograp	phic mapping creates connections between graphemes and	
	o secure spellings bonded to pronunciations of words in memory.	
However, me	eanings must also become bonded to spellings in memory.	
Bondir	ng is facilitated when words are read in meaningful contexts.	
Connecting s	semantic information to spellings of words is especially important	
for words tha	at have little meaning when pronounced in isolation. Such words	
require sente	ence contexts to activate their meanings." (Elni, 2022, p. 57)	
 74		
/ 4		
Ehri: Fost	ering Orthographic Mapping	
	rtant function of reading words in text is to activate meanings	
	ic information about the words' roles in sentences so that tion becomes bonded to spellings and pronunciations stored	
	Giving children lots of practice reading and comprehending	
	level serves this purpose. It establishes fully formed sight	
	all their identities—spellings, pronunciations, meanings	

roles in sentences—bonded together as one unit in memory."

(Ehri, 2022, p. 57)

Ehri: Fostering Orthographic Mapping	
M	
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Bottom Line on OMG N RR:

- Orthographic mapping is an important!
- \bullet We need to use the terminology of the times to name what we teach children to do.
- While we have ALWAYS created conditions for OMG, we may need to be more deliberate and strategic for some children.